

Remarks/Arguments:

This is a reply to the office action of June 15.

Claims 1 - 6, 10 - 13 and 15 stand rejected as anticipated by Kataoka et al.

Claims 1 - 5 and 11 - 13 stand rejected as anticipated by Zara et al.

Claims 1 - 3 and 7 - 8 stand rejected as obvious over Kataoka et al. in view of Weil.

In this paper, we have amended Claims 1 and 13 adding to them the limitations of claims 2 and 3, now canceled.

Claim rejection - 35 USC § 102

Limitation to these two free radical sources overcomes the anticipation rejection over Kataoka et al.

Concerning Zara, we respectfully disagree with the Examiner. In fact, during decomposition of Fenton's reagent, the concentration of reagents decreases asymptotically. Thus the concentration of reagents never becomes zero, although at some moment it may become undetectable.

Consequently, the statement of the Examiner that at least the last polymerization reaction will take place in the absence of radical source is incorrect, since even after 50 minutes of reaction there will be a very low concentration of Fenton's reagent.

The statement present in Zara simply means that the amount of Fenton's reagent after 50 minutes is irrelevant or non-detectable, not that it is zero.

Thus, Zara does not anticipate claim 1.

Claim rejection - 35 USC § 103

Claim 1 differs from Kataoka et al. not only by the use of a different radiation source.

First of all, pending claim 1 relates to a "method for functionalizing polysaccharides" in the form of a fiber, while Kataoka et al. teaches a method for functionalizing a textile fabric and a non-woven fabric.

Furthermore, Kataoka et al. discloses the use of hydrophobic and hydrophilic textiles, however the preferred textiles are the hydrophobic ones: all examples are performed with polyester textiles. When discussing the amount of monomer (col 7, lines 18-26), the patent states: "The amount of monomer can be selected, as required, depending on the reaction conditions and the like, and it is not particularly limited if it is an amount by which a hydrophilic nature corresponding to the use can be imparted to another surface of the textile fabric or the nonwoven fabric. For example, it is between 0.3% by weight and 2% by weight..."

It is evident that the range of monomer is referring to the case of hydrophobic textiles, since it specifies that it has to be an amount capable of rendering the surface hydrophilic. Consequently, it is our opinion that Kataoka et al. does not disclose any amount of functional groups introduced in *a hydrophilic material such as a polysaccharide*.

Weil et al. contains a very generic teaching that electron beam can be used to generate free radicals on a textile. It generates free radical on the surface of a textile and the free radical immediately reacts with the phosphonate compound.

Hence, it is not evident why the skilled person would be motivated to combine two documents which are so different. Even if it were the case, which we do not admit, the skilled person starting from Kataoka and willing to use an electron beam instead of

plasma, would start from one of the examples of Kataoka and modify it according to the teaching of Weil. Consequently, the skilled person would apply electron beam radiation only to *a hydrophobic textile such as polyester*.

Thus, the subject matter of claims 1 and 13 involves an inventive step over Kataoka in view of Weil.

We believe the claims now presented are patentable over the prior art of record, and that this application is now in condition for allowance.

Respectfully submitted,

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